

REMARKS/ARGUMENTS

The above identified application has been reviewed in light of the Examiner's Action dated May 27, 2008. Claims 1, 7, 18, 21 and 22 have been amended, and Claims 5, 8, 10 and 26-29 have been canceled, without intending to abandon or to dedicate to the public any patentable subject matter. Accordingly, Claims 1, 7, 11, 18-22 and 30 are now pending. As set forth herein, reconsideration and withdrawal of the objections to and rejections of the claims set forth in the Office Action are respectfully requested.

Support for the amendments to the claims can be found in the original specification, at p. 16, ln. 11 to p. 18, ln. 15; p. 19, ln. 25 to p. 20, ln. 14; p. 51, ln. 22; p. 52, ln. 17 to p. 53, ln. 11; and p. 56, ll. 10-18.

Claims 1, 18 and the claims dependent therefrom stand rejected under 35 U.S.C. § 112 paragraph 6. Applicant believes that this rejection has been overcome with claim amendments removing the term "means for heating".

Claims 1, 8, 11, 19, 20, and 26-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 2002-325355 to Sugawara (hereinafter "Sugawara '55") in view of Sugawara, "Recent Progress in Sic Power Device Developments and Application Studies," April 14-17, 2003, Cambridge, UK. pp. 10-18 (hereinafter "Sugawara '03").

Claims 1, 5, 7, 10, 11, 18-20 and 26-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sugawara '55 in view of JP 9-148681 to Tato (hereinafter "Tato").

Claims 21 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sugawara '55 in view of Tato, and further in view of U.S. Patent Publication 2003/0213979 to Nakajima, et al.

In order to establish a *prima facie* case of obviousness under § 103, there must be some suggestion or motivation to modify the reference or to combine the reference teachings, there must be some reasonable expectation of success, and the prior art references must teach or suggest all of the claim limitations. (MPEP § 2143). Moreover, "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (*In re Kahn*, 441 F.3d 977, 988, 78 USPQ 2d 1329, 1336 (Fed. Cir. 2006); *See also*, *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. _____, 127 S.Ct. 1727, 1741, 82 USPQ 2d 1385, 1396 (U.S. 2007) (quoting statement of *In re Kahn* with approval).)

As set forth herein, Applicant respectfully submits that the references do not teach all the claim limitations, as amended.

With respect to Claim 1, due to the heater and the temperature controller, the wide-gap bipolar semiconductor element is heated “to a temperature of 50°C or more and less than 200°C before energization”, and then the temperature of the wide-gap bipolar semiconductor element is raised “to 200°C or more by self-heating”. By this two step control, the stacking faults including basal plane dislocation perform as if they were not present, resulting in no increase of the ON voltage. This performance has been explained in the Amendment and Response submitted in this application by Applicant on August 27, 2007. There is no description of such temperature control executed as a two-step control in the cited references Sugawara '55 or Sugawara '03. For at least this reason, Claim 1 and the claims dependent therefrom are not obvious, and the rejections of these claims should be reconsidered and withdrawn.

With respect to Claim 18, due to the heat sink and the temperature controller, the temperature of said wide-gap bipolar semiconductor element is kept “at the temperature of 50°C or more and less than 200°C” by self-heating, and then the temperature of the wide-gap bipolar semiconductor element is raised “to 200°C or more by self-heating”. By this two-step control, the stacking faults including basal plane dislocation perform as if they were not present, resulting in no increase of the ON voltage. This performance is similar to that of Claim 1, and there is no description of such temperature control in the cited references Sugawara '55 or Tato. For at least this reason, Claim 18 and the claims dependent therefrom are not obvious, and the rejections of these claims should be reconsidered and withdrawn.

With respect to Claims 7, 11, 19-22, and 30, Applicant respectfully requests reconsideration and withdrawal of the rejections as these claims directly or indirectly depend from the amended Claims 1 and 18 which now appear in condition for allowance.

Based on the foregoing, Applicants believe that all pending claims are in condition for allowance, and early notification of the same is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully Submitted,

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